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contd

a slot forming portion 62 and a skirt forming portion 63. An electron beam passing a slot enters directly linearly into the slot at a central portion S of the shadow mask, but it enters obliquely to the slot as directed to an outer peripheral portion thereof. For this reason, a front side opening and a back side opening of the slot of the conventional shadow mask are adjusted in the opening forming positions thereof.--

On pages 3 and 4, please replace the first full paragraph, starting with "Figs.8 to 10 are..." on page 3 and concluding on page 4, with the following paragraph:

B3 Figs. 8 to 10 are schematic views for explaining such problem. Fig.8(i) is a view showing the shape of the slot formed at the R point on the X-axis of coordinate shown in Fig.6, in which the front side opening 72 is formed through the etching working with the back side opening 71 being shifted from the front side opening 72. The electron beam 73 passing through the central portion A of the slot can pass, with a desired width W as shown in Fig.8(ii), a portion between side wall sections 83 and 84 to which thin steps 81 and 82 are formed through the sufficient etching process. On the other hand, the electron beam 73 passing through the upper end portion B in the longitudinal direction of the slot is shut off by a step 86, having a large thickness, formed to a side wall section 88, which is not subjected to the sufficient etching process, as shown by the sectional view of Fig.8(iii), and hence, this electron beam 73 cannot pass with the desired width W. As mentioned above, the difference of the shapes of the side wall sections, particularly, the thicknesses of the steps are the ventral portion A and the longitudinal upper end portion B resides in the difference in the etching progressing speeds caused by the positional relationship between the front side opening 72 and the back side opening 71. That is, at the central portion A of the slot, the etching progressing speed is large (high) and this portion is etched with a sufficient speed to thereby form the thin steps 81 and 82. On the other hand, at the upper end portion B, the etching progressing speed is small (low) and this portion is not sufficiently etched, so that the etching progresses from the back side opening 71 having a small opening width and, hence, the steps 85 and 88 having large thickness are formed. As a result, a spot of the electron beam passing the slot and landing on the fluorescent surface provides a curved shape in which upper and lower end portions of a boundary line of the outer peripheral side of the Braun tube because the incident electron beam 73 is shut off by the thickened step 86

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formed to the side wall section 88 on the outer peripheral side which is not subjected to the sufficient etching working.

On page 12, please replace the second full paragraph, starting with "As shown in Fig.2(i)..." with the following paragraph:

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As shown in Fig.2(i), the slot of the point P has the back side opening 1 and the front side opening 2 having the same shapes as those of the slot of the point S shown in Fig.1. The front side opening 2 is formed so as to be shifted towards the outer peripheral side of the shadow mask with respect to the back side opening 1 so as not to obstruct the passing of the electron beam 9 entering obliquely to the slot. Since the slot of the point P exists on the Y-axis of coordinate, the center M of the front side opening 2 and the center N of the back side opening 1 are coincident with each other. As shown in Figs. 2(ii) and (iii), the side wall sections 3 and 4 formed through the etching working have the shapes symmetric with each other.

On pages 13 and 14, please replace the third full paragraph, starting with "As shown in the sectional..." on page 13 and concluding with page 14, with the following paragraph:

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--As shown in the sectional view of Fig.3(ii), the etching progresses at a high speed at the central portion of the slot, so that the thicknesses H and h of the steps 35 and 36 formed respectively to the side wall sections 3 and 4 are made thin. However, since the opening center M of the front side opening 2 is shifted towards the outer peripheral side of the shadow mask, the thickness H of the step 35 formed to the side wall section 3 on the central side of the shadow mask is larger than the thickness h of the step 36 formed to the side wall section 4 on the outer peripheral side. As mentioned above, the electron beam 31 incident obliquely to the C1-C1 section of the slot formed through the etching working passes the slot with the width W which is determined by the end face edge 37 of the back side opening 11 on the central side of the shadow mask and the step 36 of the side wall section 4 on the outer peripheral side thereof. The width W of the electron beam 31 at this time becomes equal to the width W between steps 15 and 16 formed to the rectangular slot shown in Fig.1.--

On pages 14 and 15, please replace the first full paragraph, starting with "As shown in the sectional view..." on page 14 and concluding on page 15, with the following paragraph;

--As shown in the sectional view of Fig.3(iii), since the etching progresses at a slightly reduced speed at the lower end portion of the slot, the etching progresses from the back side opening 11 and its depth is slightly made large instead that the etching depth from the front opening 2 is made small. As a result, the thickness H and h of the respective steps 35 and 36 of the side wall section 3 are made thick respectively more than that in the case shown in Fig.3(ii), and the etching opening area of the back side opening 11 is made slightly large. However, the positions of coordinate of the end face edge 37 of the back side opening 11 on the central side of the shadow mask is substantially equal to the position of coordinate of the end face edge shown in Fig.3(ii). Likely, the position of coordinate of the step 36 of the side wall section 4 on the outer peripheral side of the shadow mask has the same position of coordinate which is shifted, in the depth direction, from the position of the coordinate of the step 36 shown in Fig.3(ii). As mentioned above, the electron beam 31 incident from the oblique direction to the C2-C2 section of the etched slot passes the slot with the width W which is determined by the end face edge 37 of the back side opening 11 on the central side of the shadow mask and the step 36 of the side wall section 4 on the outer peripheral side thereof. In spite of the fact that the position at which the back side opening 11 of the C2-C2 section is formed is on the side near the opening center M of the front side opening 2 rather than the C1-C1 section, the width W of the passing electron beam 31 becomes equal to the width W between the steps 15 and 16 of the rectangular slot shown in Fig.1 and then the width of the electron beam passing the section of Fig.3(ii) and the position of coordinate are coincident.--

On pages 15 and 16, please replace the first full paragraph, starting with "As shown in the sectional view of Fig.3(iv)..." on page 15 and concluding on page 16, with the following paragraph:

--As shown in the sectional view of Fig.2(iv), since the etching progresses at a slow speed at the lower end portion of the slot, the etching progresses from the back side opening 11 and its depth is made large instead that the etching depth from the front opening 2 is made further small. As a result, the thicknesses H and h of the respective steps 35 and 36 of the side

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wall section 3 are made thick respectively more than in the case shown in Fig.3(ii), and the etching opening area of the back side opening 11 of the central side of the shadow mask is made further large. However, the position of coordinate of the end face edge 37 of the back side opening 11 on the central side of the shadow mask is substantially equal to the position of coordinate of the end face edge shown in Figs.3(ii) and 3(iii). Likely, the position of coordinate of the step 36 of the side wall section 4 on the outer peripheral side of the shadow mask has the same position of coordinate which is shifted upward from the position of the coordinate of the step 36 shown in Fig.3(ii) and (iii). As mentioned above, the electron beam 31 incident from the oblique direction to the C3-C3 section of the etched slot passes the slot with the width W which is determined by the end face edge 37 of the back side opening 11 on the central side of the shadow mask and the step 36 of the side wall section 4 on the outer peripheral side thereof. In spite of the fact that the position at which the back side opening 11 of the C3-C3 section is formed is on the side further near the opening center M of the front side opening 2 rather than the C2-C2 section, the width W of the passing electron beam 31 becomes equal to the width W between the steps 15 and 16 of the rectangular slot shown in Fig.1 and then, the width of the electron beam passing the sections of Figs.3(ii) and (iii) and the position of coordinate are coincident.--

In the Abstract

Please replace the abstract presently on file with the abstract enclosed herewith on a separate sheet.